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Inchcape Testing Services
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Foreword

The characteristic of drape of fabric is complex, and this standard provides a simple method of measuring this property from the deformation by gravity of an initially horizontal annular ring of fabric. A measure of drape is obtained as a single number with a theoretical maximum of 100 and minimum of zero. The specimen deforms with multi-directional curvature and the result is, therefore, dependent upon the shear stiffness of the fabric in addition to the bending stiffness.

The procedure may be used for measuring the effect of variables of fabric construction and finish, for the control of batches and deliveries and for quality control.

A paper on the reproducibility of the method was published in 'Textile Institute and Industry', January 1972.

British Standard Method for The assessment of drape of fabrics

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1. Scope

This British Standard describes a method of test for the assessment of drape of fabrics, and is applicable to all fabrics intended for end uses in which drape is important.

NOTE. The title of the British Standard referred to in this standard is given on the inside back cover.

2. Principle

A circular fabric specimen is held concentrically between smaller horizontal discs, and an annular ring of fabric is allowed to drape into folds around the lower supporting disc. The shadow of the draped specimen is cast onto an annular ring of paper of the same size as the unsupported part of the fabric specimen. The outline of the shadow is traced onto the ring of paper, the mass of which is then determined. The paper is then cut along the trace of the shadow and the mass of the inner part representing the shadow is determined. The drape coefficient is calculated from the two masses.

3. Definitions

For the purposes of this British Standard the following definitions apply:

- (1) *Fabric drape*. The extent to which a fabric will deform when it is allowed to hang under its own weight.
- (2) *Drape coefficient*. The percentage of the total area of an annular ring of fabric obtained by vertically projecting the shadow of the draped specimen.

4. Apparatus

The following apparatus is required:

- (1) *A test apparatus* consisting of:
 - a. two horizontal discs of diameter 18 cm between which the specimen is held, the lower disc having a central locating pin,
 - b. a point source of light positioned centrally beneath the discs and at the focus of a concave parabolic mirror which reflects parallel light vertically upwards and so casts a shadow of the draped annular ring of fabric onto an annular ring of paper placed centrally above the discs on the lid of the instrument and
 - c. a centre plate on the lid to locate the paper ring.

(See Appendix A and Fig. 1.)

Other apparatus giving results similar to those obtained using the above apparatus may be used.

- (2) *Three circular templates* suitably adapted to facilitate marking the centre of the test specimen.

Template A	24 cm diameter
Template B	30 cm diameter
Template C	36 cm diameter

- (3) *Annular rings of translucent paper*, of internal diameter 18 cm and external diameter equal to the diameter of the test specimen. (These may be obtained from the manufacturer of the apparatus described in (1).)

- (4) *Balance* capable of determining mass to an accuracy of 0.01 g.

5. Conditioning and testing atmosphere

The atmosphere required for conditioning and testing is the standard atmosphere for testing textiles as specified in BS 1051, i.e. a relative humidity of $65 \pm 2\%$ and a temperature of $20 \pm 2^\circ\text{C}$.

6. Preparation of test specimens

- 6.1 *Conditioning*. Condition the fabric to be tested for at least 24 hours in the atmosphere specified in Clause 5.